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ABSTRACT

The Medical-Counseling, Organizing, and Recruiting (Med-COR) program is a project sponsored by the University of California School of Medicine and the Los Angeles Unified School District to provide career information and experience in the health professions for middle school and high school students. This study evaluated the impact of the Med-COR program by concentrating on three factors pertaining to program graduates: current education, student opinions, and socioeconomic status. The 2001 class of 106 students was surveyed by mail with specific questions about their current higher education status, opinions about the program's impact, and their family size and income. Responses were received from 57 students. Findings show that Med-COR graduates immediately pursued higher education, with nearly all students enrolled in 2-year or 4-year institutions. A large percentage (42%) were pursuing majors related to health and medical careers. Academic support in high school courses, study habits, and college preparation assignments were the most commonly stated opinions about the program's impact. Other forms of impact identified were specific forms of motivational support, career and university preparation, and work experience in the medical field. Nearly two-thirds of program participants belonged to low-income families. (SLD)

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A LONGITUDINAL EVALUATION OF THE MED-COR PROGRAM'S EFFORTS TO IMPROVE MINORITY STUDENTS' POSTSECONDARY EDUCATIONAL OPPORTUNITIES AND HEALTH CAREER PARTICIPATION
PART B: GRADUATE FOLLOW-UP STUDY

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Executive Summary

The study evaluates the impact of the Med-COR program by concentrating on three factors pertaining to program graduates: current education, student opinions, and socioeconomic status. The 2001 class, made up of 106 students, was surveyed via mail with specific questions about their current higher education status, opinions about the program's impact, and their family size and income.

The resultant sample reflects the responses of 57 students or over half of the program graduates of 2001. The findings show that the Med-COR program graduates:

1. Immediately pursued higher education. Nearly all of the students indicated current enrollment in two-year colleges or four-year colleges and universities.
2. A large percentage (42%) of these students are pursuing majors related to health and medical careers.
3. Academic support in high school courses, study habits, and college preparation assignments were the most commonly stated opinions about the program's impact. Other forms of impact were specific forms of motivational support, career and university preparation, as well as the work experience in the medical field.
4. Nearly two-thirds of program graduates belong to low-income families showing that the program impacts a majority of lower income students.

A Longitudinal Evaluation of the Med-COR Program's Efforts To Improve Minority Students' Postsecondary Educational Opportunities And Health Career Participation

Part B: Graduate Follow-up Study

Background

The following study focuses on the current educational status of Med-COR program graduates. Its primary purpose is to present general conclusions about the program's impact. Student data was gathered through surveys requesting information about college and university attendance, health science or medical field interests, and student opinions about the program. Additionally, questions related to family size and income were included to measure the program's effort to reach low-income students.

The study aimed to collect data from each Med-COR graduate of 2001. This class included a total of 106 students whose names and addresses were obtained from the Med-COR program. Students were contacted through mail and asked to complete an enclosed survey. The survey mainly consisted of six questions but also included a brief introduction and request to participate in our study and additional student contact information for future studies.

The six survey questions examined the students' education, their Med-COR experience, and their family income status. Questions 1, 2, and 3 sought current information about their post-high school and post-Med-COR education.

Question 1: Are you attending any college or university?
Question 2: If 'Yes', please write the name of your college or university.
Question 3: If 'Yes' what is your current major?

Question 4 sought to gather the students' personal judgment about the Med-COR program. We asked students to comment about their experience in the program and how it influenced their education.

Question 4: In your opinion what was the greatest impact of the Med-COR program on your achievement?

Question 5 and 6 pertained to the student's family information regarding size and income. These questions were included to present the range of income levels that characterize the students who participate in the program.

Question 5: What is the number of people in your family household?
Question 6: Mark your family's yearly total income.

__Below $15,000
__$15,001-$25,000
__$25,001-$35,000
__$35,001-$50,000
__More than $50,000

The data collected from the surveys provide descriptive information presented in the following section of this report.

Results

This section presents findings from 57 completed surveys. Three attempts via mail were made to contact the 106 Med-COR class 2001 graduates . We were unable to reach 10 of these students at their listed addresses and 40 students did not respond to our survey. The completed surveys yielded a 54% response rate and, therefore, our resultant sample reflects slightly over half of the 2001 graduates. As a result, our findings may or may not represent the opinion of the whole sample and should be reviewed with caution. Our findings fall into three areas: Med-COR graduates' *current education, opinions about the impact of the Med-COR program, and their family socioeconomic status.*

Current Education

The findings pertaining to students' current educational status correspond to Questions 1, 2, and 3. In response to Question 1, "Are you attending any college or university?" we found that 97% of respondents answered yes.

Table 1
Attending a College or University

Response	Frequency	Percent
Yes	55	96.5
No	2	3.5
Total	57	100.0

Of these students, nearly 30% are currently enrolled in the University of California system, 25% are enrolled in the California State University system, and 21% of the students are currently attending a private 4-year institution. About one-fifth (21%) of students currently enrolled in school attend a two-year college. Four percent of students did not respond to this question.

Table 2
Type of College and Universities Attending

Type	*Frequency*	*Percent*
UC system	17	30
CSU system	15	26
Private 4-year university	11	19
2-year colleges	12	21
No Answer	2	4
Total	57	100

Students responding to Question 2 named 27 colleges and universities in California. The school with the largest number of Med-COR graduates was UCLA, followed by UC Berkeley, USC, Cal State-LA, and Cal State-Northridge--each holding an equal number of students from our sample of Med-COR graduates.

Table 3
Name of College or University Attending

College/University	*Frequency*	*Percent*
University of California, Los Angeles	7	12.3
University of California, Berkeley	4	7.0
University of Southern California	4	7.0
California State University, Los Angeles	4	7.0
California State University, Northridge	4	7.0
University of California, Santa Cruz	3	5.3
California State University, Dominguez Hills	3	5.3
Mount St. Mary's	3	5.3
University of California, Santa Barbara	2	3.5
California State University, Long Beach	2	3.5
El Camino Community College	2	3.5
Santa Monica College	2	3.5
University of California, Irvine	1	1.8
Occidental College	1	1.8
Emory University	1	1.8
Loyola Marymount University	1	1.8
Notre Dame University	1	1.8
San Diego State University	1	1.8
Humboldt State University	1	1.8
Pasadena City College	1	1.8
Los Angeles Mission College	1	1.8
Los Angeles City College	1	1.8
East Los Angeles College	1	1.8
Los Angeles Trade Technical	1	1.8
Los Angeles Pierce College	1	1.8
Long Beach City College	1	1.8
College of the Canyons	1	1.8
No Answer	2	3.5
Total	57	100.0

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In terms of students' specific area of study, students are currently pursuing 18 different majors presented in the following table.

Table 4- Med-COR Graduates Selected Major

Major	*Frequency*	*Percent*
Biology	12	21.1
Undeclared	8	14.0
Liberal Studies	7	12.3
Psychology	7	12.3
Nursing	4	7.0
Sociology	3	5.3
Criminal Justice	2	3.5
Communications	1	1.8
Business	1	1.8
Chemistry	1	1.8
Accountancy	1	1.8
Life Science	1	1.8
Neuroscience	1	1.8
Graphic Design	1	1.8
Biochemistry	1	1.8
Psychobiology	1	1.8
Kinesiology	1	1.8
Bioengineering	1	1.8
Film	1	1.8
No Answer	2	3.5
Total	57	100.0

Forty-two percent of the majors represented in our sample correspond to either health science or medical field career. The largest numbers of students (in majors related to health or medicine) are pursuing Biology. It is also worth noting that Biology is, by far, the most common major overall. Nursing held the second largest number of students among those related to health or medicine. Other health or medically related majors represented are Neuroscience, Chemistry, Kinesiology, Life Science, Biochemistry, and Bioengineering.

As presented in the following table, forty-four percent of students in our sample selected a major not related to a health science or the medical field. Among these, Psychology and Liberal Studies are the most common majors currently being pursued. Some examples of these majors include Sociology, Criminal Justice, Business, and Film. It is important to note that among the students currently enrolled in a college or university, 14% are undecided or have not declared a major. It is possible that some of these students would pursue a health science or medical field career.

Table 5-
Med-COR Graduates Selected Area of study

Major	*Frequency*	*Percent*
Health Science	23	40.4
Psychology	7	12.3
Other	17	29.8
Undeclared	8	14.0
No Answer	2	3.5
Total	57	100.0

Opinions About the Impact of Med-COR Program

Due to a wide range of student opinions about the impact of the Med-COR program, we grouped various responses under general topics to get a broader view of students' opinions. In addition, a specified list of opinions is also presented. Both the broad and specific data reflect 145 student opinions provided by 57 participants (some of the respondents commented on more than one issue).

The participants' opinions were classified into fourteen general categories. The most commonly stated opinion by 23% of the respondents was that the Med-COR program provided effective academic support and guidance. Furthermore, students opined that the academic support provided had a direct impact on their high school coursework, study habits, academic

grades, and college preparatory work. Furthermore, academic support was viewed as particularly critical to getting good scores on the SAT (Scholastic Aptitude Test) college entrance exam.

Another commonly held opinion by 15% of the respondents was that the program was successful in motivating students. This group of graduate students stated that the program motivated them to do their best, plan for the future, continue their education, set goals, and increase their self-esteem.

An equally common category that arose from student opinions was the program's efforts to provide career information. Fifteen percent of the students' opinions commented that the career information offered through the program enabled them to meet professionals, directly influenced their career choice, provided useful information about the medical field, and strengthened their interest in the medical profession. Some students noted that the career information obtained during Career Day was the most helpful form of career information. Additionally, in a separate category, five percent of responding students explicitly noted that the program, as a whole, influenced them to enter the medical field.

Providing university information' was the next most common category stated by students. A significant number of participants' opinions (14%) stated that the program provided useful information about college. Some students added that the College Fair was a helpful effort towards this aim. The immediate assistance given during the college application process and financial aid workshops that informed students about the opportunities to obtain grants and scholarships were also considered helpful.

Students also believed that the medical field experience they obtained through the Med-COR summer job program directly contributed to their academic achievement. Ten percent

mentioned the medical experience they received as one of the important program components that had the greatest impact. The experience provided students the opportunity to meet doctors and other medical professionals to learn medical knowledge. It also granted students an awareness of the hospital environment and allowed them to interact directly with patients.

Students also said that the program provided a positive social environment. Nearly 8% of student responses noted that the social environment of the program was culturally diverse and was focused on minority students. Other students added that the peer friendships and the mutual support from others were great aspects of the program. The following table presents a list of students' specific opinions on each topic.

Table 6
Specified list of student opinions by category

Opinion	% Student responses	Frequency
Providing academic support	23%	33
High school courses		
Study habits		
College preparation		
Improved students grades		
Prepared students for the SAT		
Motivating students	15%	22
To do their best		
To plan for the future		
To continue in school		
To set goals		
To gain self esteem		
Providing information about careers	15%	22
Career day		
Influenced career choice		
Provided information about the medical field		
Strengthened students interest in the medical field		
Exposed students to professionals		

Table 6 (continued)

Providing university information	14%	20
College fair		
Application aid		
Financial aid workshops		
Provided medical field experience through summer jobs	10%	14
Meeting doctors		
Learned medical terminology		
Awareness of hospital environment		
Interaction with patients		
Provided a positive social environment	8%	11
Culture diversity		
For minority students		
Peer friendships		
Positive regard for peers		
Influenced students to enter the medical field	5%	7
Program staff commitment inspired students	4%	6
Influenced students to become learning facilitators		
Provided educational lectures and trips		
Provided one-on-one attention and small class size		
Exposed students to college level lab work	2%	3
Emphasized community involvement and service	<1%	1
Influenced students' siblings to attend program	<1%	1
Negative or no impact	2%	3
Just another academic activity to be involved with		
Program impact is declining		
Program has potential	<1%	1
Program was not structured	<1%	1
Total Responses		145

Family Size and Income

The findings corresponding to Question 5, "What is the number of people in your family household?" resulted in three main groups of students. Nearly 23% of students' had families of two or three members. Sixty-four percent of the respondents had families of 4 to 6 members. Families of seven or more members were represented in a third group of nearly 16% of our student sample.

Table 7
Question 5-Graduate Family Size

No. of family members	Frequency	Percent
2 to 3	13	22.8
4 to 6	35	61.4
7 or more	9	15.8
Total	57	100.0

Annual family incomes for most of the students fell below $35,000 (62%). Almost 18% of students belong to families earning below $15,000 annually. The highest percentage of students (25%) noted family incomes ranging from $15,000 to $25,000. About one-fifth of students (21%) reported annual family incomes between $25,000 and $35,000. Only 14%, the least number of students, marked their family incomes in a range between $35,000 to $50,000. In addition, 21% of students' family incomes are more than $50,000.

Table 8
Question 6-Graduate Family Income

Income Level	Frequency	Percent
Below $15,000	10	17.9
$15,000-$25,000	14	25
$25,000-$35,000	12	21.4
$35,000-$45,000	8	14.3
More than $50,000	12	21.4
No response	1	1.8
Total	57	100.

Students' family size and income were combined to construct a rough family socio-economic profile. Students reporting family income below $25,000 were considered low income as well as students who reported family incomes between $25,001 to $35,000 and $35,001 to $45,000 with five or more members in their families. Middle income' families were students who reported a family income ranging from $25,001 to $35,000 and $35,001 to $45,000 of families with four or less members. High income families qualified students who reported incomes over $50,000.

The program served a large majority of lower income students with the highest percentage of program graduates (61%) classified as low income. This is a large number of students in comparison to 16% of students classified as middle income and 21% of students as high income.

Table 9
Socio-Economic Profile

Socio-Economic Profile	Frequency	Percent
Low	35	61.4
Middle	9	15.8
High	12	21.1
No response	1	1.8
Total	57	100.

Conclusions

The findings of our study consider the responses of over half of the program graduates of the class of 2001 but it does not include information about non-respondents. Therefore, it is important to understand that the generalizations of these results do not capture the responses of a significant number of 2001 program graduates.

The results of our study reveal that the overall impact of the Med-COR program were apparent in the following:

1. Program graduates immediately pursued higher education. Nearly all students are currently enrolled in a two-year college or four-year college or university.
2. Program graduates chose to study a major related to a health science or medicine. The most common major overall was Biology. This and other majors related to a health science or medicine made up a large percentage (42%) of the majors that students are currently pursuing. In addition, 5% of students reported that the program directly influenced their decision to enter the medical field.

3. Program graduates attributed positive program impact to specific forms of academic and motivational support, career and university preparation, as well as the opportunities to gain work experience in the medical field. Academic support was the most commonly mentioned form of impact in which the program specifically aided students in their high school and college prep coursework. In addition students reported the academic support directly influenced their study habits, improved their grades, and assisted in their SAT preparation.
4. Nearly two-thirds of program graduates belong to low income families showing that the program impacts a majority of lower income students.

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